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MEMORANDUM

Date: August 23, 2011

To: Joanne Marchetta, TRPA Executive Director

From: David L. Landry, Senior Planner, Planning Department

Subject: Homewood Mountain Resort Ski Area Master Plan EIR/EIS
Methodology for Tracking Land Coverage Banking

5154 West Lake Boulevard, Placer, County, California, Assessor's Parcel Numbers (APNs)
097-130-16, TRPA File Number STD20061130

Background: In continuing the analysis of the Homewood Mountain Resort Ski Area Master Plan and preparation of the joint of EIR/EIS, JMA Ventures, the current owner of Homewood Mountain Resort, has submitted an application for the banking of verified soft land coverage associated with unused ski facilities and restored roads which span a number of HMR parcels, see TRPA File Number VBOC2011-0237. In October 2005 HMR made application for a Grading/Road Restoration permit for the restoration of existing roads on the mountain at Homewood Mountain Resort, using various re-vegetation, mulching, soil treatments, re-contouring and other techniques. As a result of restoration work from 1998, it was determined that some road segments and other facilities were adequately restored and the land coverage for those facilities was banked in the amount of 126,324 square feet of coverage, see TRPA File 970662. Over the course of several months, beginning in 2005 and continuing through 2006, several additional applications for the verification of existing land coverage from restored roads and other facilities were submitted to TRPA for Homewood Mountain parcels identified in Attachment A. The purpose of the verifications was to substantiate the continued removal and restoration of unused facilities and unpaved road segments throughout the rest of the Homewood project area. The methodology used to substantiate the completed restoration work was based on the review of historic aerial photographs, field measurements, and site reconnaissance of road segments that were subjected to various de-compaction and restoration techniques as described in Attachment B; Homewood Mountain Resort Road Coverage Removal Summary. As a result of this process TRPA was able to verify the existence of 1,090,078 square feet of soft coverage associated with the onsite roads and another 9,485 square feet of coverage associated with accessory ski facilities, for a total of 1,099,563 which is now eligible to be restored and banked.

In moving forward with the completion of the banking application it was necessary to reconcile differences in the previous parcel configuration used for the land coverage verification process and the new, reconfigured parcels used for the banking application. The following is a description of the boundary line adjustment, land coverage verification and land capability processes needed to complete the land coverage banking process.

Boundary Line Adjustment:

Background: In preparation of the potential acquisition of the Homewood Mountain Resort by the US Forest Service, Jeff Yurosek, the previous owner of the Homewood Mountain Resort actively pursued the necessary approvals to facilitate the acquisition. As this acquisition would span several parcel boundaries, it was deemed necessary to conduct a Boundary Line Adjustment which would reconfigure and consolidate 30 existing parcels or legal lots of record into 20 parcels. The BLA process initiated by Mr. Yurosek was not finalized and the resort was sold to JMA Ventures who in December 2005 made formal application to complete the boundary line adjustment. The approval of the boundary line adjustment was finalized in August 2009 with the Forest Service acquiring a small portion of Homewood Mountain Resort known as the Quail Lake watershed. Attachment C shows the previous parcel configuration which was used to complete the land coverage verification and Attachment D which shows the resulting (new) configuration used to complete the Land Coverage Banking process. The finalized Boundary Line Adjustment establishes the current parcel configuration for the review and analysis of the proposed ski area Master Plan and related environmental documents. It should be noted that the Land Coverage Verifications conducted between 2005 and 2006 were done so using the parcel configuration that existed prior to the 2009 Boundary Line Adjustment approval.

Land Coverage Verification:

Additional Information: The following is further detail on the process used for verifying restored land coverage on the Homewood Mountain Resort project area. Area calculations for the Land Coverage Verification consist of unpaved roads, identified as 'dirt roads' in the TRPA verification letters and ski facilities consisting of; (ski lift tower footings, lift shacks, cable wheel platforms, lift terminals and other structures). A U.S. Forest Service Aerial photograph taken in 1969 was used to verify the legal existence and extent of the roads on the Homewood Mountain Resort site. In addition road maps developed from field surveys were overlaid onto the aerial photo by Tri State Surveying in 2005 and 2006 to confirm the accuracy of both the survey maps and aerial photograph. Road widths for coverage verifications were then measured in the field with the road width dimensions overlaid on the aerial photograph by Tri State Surveying. For restoration purposes, the mapped road segments were broken into 'project areas' of varying lengths based on widths of restored areas that were field measured after undergoing Tier 1, 2, or 3 restoration techniques, (described in the Homewood Mountain Resort Road Coverage Removal Summary), Attachment B. By comparing the restored area road widths and lengths with the recorded road widths on the aerial photo, TRPA Staff was able to calculate the total square footage of restored land coverage eligible for banking and the total square footage of restored disturbed area eligible for restoration credit. It should be noted that the total amount of banked land coverage cannot exceed the total amount of land coverage that was verified by TRPA in 2005 and 2006. It should also be noted that to present the most conservative land coverage calculations for existing conditions, the land coverage totals have been calculated to exclude lands beneath public ROWs within the South Base area per TRPA Code of Ordinances Section 20.3.D(1)(b). 20,110 square feet has been excluded from the calculations as it is unclear if land coverage beneath the public rights-of-way (ROW) was included or excluded from a review of the analysis completed for the boundary line adjustments within the Project area.

Land Capability:

TRPA performed a series of Land Capability Verifications for various portions of the Homewood Mountain Resort between 1993 and 2007, prior to the review of the current Ski Area Master Plan proposal. These verifications were performed to support the evaluation of proposed projects such as ski lift modifications and forestry activities, separate from the current master plan project. In May 2008, Homewood Village Resorts LLC filed a Land Capability Challenge (LCC) for two areas within the Homewood Mountain Resort. One LCC area contained the eastern most portion of Homewood

Mountain Resort encompassing both the North and South Base areas. The second LCC area was somewhat linear, running northeast to southwest and roughly centered on the proposed mid-mountain lodge. These LCC's were initiated due to disagreement about mapped soil types and the extent of Stream Environment Zones (SEZs) in and around developed areas. The TRPA Hearings Officer approved a revised Land Capability Verification for the LCC areas at a public hearing in August 2009. The revised Land Capability Verification resulted in changes to the extent of SEZs and reclassified several land capability districts. TRPA received no formal appeals during the appeals period for the LCC.

In October 2010, Homewood Village Resorts LLC submitted a Land Capability Verification request for the remainder of the Homewood Mountain Resort project area not included in the LCC areas. This 2010 verification request included soil descriptions and draft land classifications prepared by a licensed surveyor. The draft land classifications were corroborated and revised by TRPA staff based on field observations and measurements of representative SEZ areas, aerial photographs, soil maps, and topographic slope-phase information. The revised land classifications were approved by TRPA in December 2010. The 2010 Land Capability Verification evaluated and, where appropriate, integrated information from verifications completed between 1993 and 2007. The 2010 verification also incorporated recent field data, and used the most current topographic and soil information to evaluate land capability across the entire Homewood Mountain Resort, with the exception of the already approved LCC areas. Due to the quality of data available for the above described process, the 2010 verification was determined to be the most accurate land capability verification for the Homewood Mountain Resort project area. As such, it was determined that the 2010 verification would supersede any previous verification if there was a discrepancy between the two. The 2010 verification was overlaid onto the reconfigured parcels and is being used for the banking of restored land coverage, and in the analysis of environmental impacts for the ski area master planning process.

Banking of Land Coverage:

The TRPA Regional Plan provides for the verification and "banking" of several types of legally existing development (land coverage) for use onsite at a later date or for transfer to another parcel. TRPA uses the term "banking" to describe the recording with TRPA of a particular amount of previously existing development that is now available for use. Only development verified as legally existing prior to TRPA's regulation of land use, i.e. existed prior to TRPA's first Code, February 10, 1972, and was present on October 15, 1986 or was approved between February 10, 1972 and October 15, 1986, and was present on October 15, 1986 is eligible to be banked.

In July 2011 JMA Ventures submitted an application for the banking of restored roadway land coverage on the upper reaches of the Homewood Mountain Resort. TRPA staff carried out field reconnaissance to determine the effectiveness of the various tiers of restoration treatment and road lengths and widths. In order to complete the Banking approval, staff requested that the applicant provide an assembly of additional mapping details depicting the parcel configuration after the 2009 Boundary Line Adjustment, the verified Land Capability mapping overlaid onto the updated parcel map, and a table of restored road segment lengths and widths by parcel. The road segment lengths and widths were then compared to the 1969 aerial photograph and TRPA verification letters. From this information staff was able to verify that 243,428 square feet of land coverage requested to be banked was legally existing and has been removed and restored. As such, Staff is prepared to approve the banking application identified as TRPA File Number VBOC2011-0237.

Attachment A

Homewood Mountain Land Coverage Verification Approvals Table

Date	Parcel Number	TRPA File Number	Road Coverage (SF)
March 1, 2006	097-050-24	20050793	57,232
March 1, 2006	097-050-33	20050789	494,229
March 1, 2006	097-050-34	20050794	41,426
March 1, 2006	097-050-35	20050795	184,742
March 1, 2006	097-050-40	20050796	133,591
March 1, 2006	097-050-42	20050797	72,704
March 1, 2006	097-060-12	20050801	106,154
			1,090,078

Date	Parcel Number	TRPA File Number	Ski Facility Coverage (SF)
March 1, 2006	097-050-24	20050793	969
March 1, 2006	097-050-33	20050789	2,836
March 1, 2006	097-050-34	20050794	750
March 1, 2006	097-050-35	20050795	679
March 1, 2006	097-050-40	20050796	2,723
March 1, 2006	097-050-42	20050797	1,378
March 1, 2006	097-060-12	20050801	150
			9,485

Attachment B



Homewood Mountain Resort Road Coverage Removal Summary



Prepared by Kevin Drake and Heather Beckman
Integrated Environmental Restoration Services, Inc.

August 13, 2011



Background

Removal and restoration of unpaved roads at Homewood Mountain Resort (HMR) has been an ongoing activity since 2006. This memo gives a brief overview/refresher of the restoration activities that have occurred since 2006 and presents a coverage table for restored coverage (with a small sample set of pre- and post-restoration treatment photos).

Restoration Objectives

Although specifically detailed in previous TRPA-approved grading permits from 2006 - 2010, broadly speaking, restoration objectives included the following:

- Remove and/or minimize hydrologic impacts of road prism on watershed hydrology
- maximize infiltration and minimize runoff
- protect the soil surface with functional mulch cover
- re-establish soil nutrient cycling
- re-establish an appropriate, self-sustaining native plant community
- protect treatment areas to prevent ongoing disturbance
- minimize import and export of materials

Treatment Types and Tiers

Various types of source control treatments are being implemented at Homewood. The primary concept framing the development of these treatments is “treatment tiers.” Treatment tiers are essentially groups of treatments that represent differences in treatment intensity and, theoretically, cost and effectiveness. The treatment tiers being implemented at Homewood build on treatment tiers that were originally described in the Forested Uplands section of the Lake Tahoe TMDL Pollutant Reduction Opportunities Report. The overall goal of this approach is to demonstrate and evaluate the cost-effectiveness of different treatment tiers at reducing sediment yield at the source.

There are three tiers of source control treatments being implemented at Homewood:

- **Tier 1 treatment (lowest treatment intensity)** - Treatments include surface mulch, with varying types and depths.
- **Tier 2 treatment (medium treatment intensity)** - Treatments include targeted soil decompaction (ripping or targeted loosening with bucket-mounted tines) and mulch. Optional treatment elements include soil amendments, organic fertilizer, and native seed (depending on site conditions and test questions).



- **Tier 3 treatment (highest treatment intensity)** - Treatments include deep soil loosening/tilling (minimum 12 inches) incorporation of a high concentration of woody soil amendments, organic fertilizer, native seed and mulch. At some sites, Tier 3 also includes hydrologic reconnection via recontouring of cut and fill areas.

Generalized treatment specifications can be found in Attachment A.

Detailed as-built reports for each project can be found in Attachment B.

Selected monitoring data demonstrating treatment effectiveness can be found in Attachment C.

Restoration Coverage Accounting

Below are two tables summarizing all restoration treatment areas at Homewood Mountain Resort between 2006 and 2010. Table 1 summarizes *field-measured* lengths, widths and total areas by project, treatment year and treatment tier (see description of treatment tiers above). Table 2 summarizes treatment areas for the same projects as Table 1 but breaks down treatment area by parcel and was derived from *GIS analysis*. *Please note that the treated lengths and total treatment areas for each project differ between Tables 1 and 2 due to the spatial error inherent in working with GIS data.* Road widths in both tables are derived from Measurements by IERS in the field following treatment implementation. For most projects, these widths are considered nearly identical to pre-treatment road widths, as few of the treated roads had notable cut or fill slopes and associated recontouring.



Table 1. All restoration treatment areas at Homewood Mountain Resort between 2006 and 2010. This table summarizes *field-measured* lengths, widths and total areas by project, treatment year and treatment tier.

Project Site	Total Project Area (ft ²)	Project Type	Tier 1 (ft ²)	Tier 2 (ft ²)	Tier 3 (ft ²)	Length (ft)	Avg Width (ft)
Lower Lombard Road	3,500	Road			3,500	250	14
Road 37	14,364	Road			14,364	756	19
Road 31	6,182	Road			6,182	281	22
2006 Total	24,046						
Creek Road	11,400	Road			11,400	950	12
Rainbow Ridge Road	48,300	Road			48,300	3,220	15
Upper Wedding Road	20,850	Road			20,850	1,390	15
2007 Total	80,550						
Homewood Canyon Creek Road	17,098	Road	924	4,404	11,770	1,140	15
Smooth Cruise Road	31,500	Road	1,440	11,680	18,380	1,750	18
2008 Total	48,598						
Diversion Spur Road Phase I	8,688	Road		8,688		724	12
Lower Wedding Road	1,920	Road	1,920			160	12
Road 33	18,462	Road	4,644	13,068	750	1,501	13
Homeward Bound 0 Ski Run	33,830	Ski Run	14,532	19,426	4,830	various	
Homeward Bound 1 Road	4,460	Road			4,460	246	18
Ellis Road Phase I	11,088	Road		10,488	500	924	12
2009 Total	78,448						
Diversion Spur Road Phase II (Road 8)	15,234	Road		15,234		1,216	13
Ellis Road Phase II	5,936	Road		4,214	1,722	559	11
The Glades Road (Road 5)	33,777	Road	10,635	23,142		1,880	24
Lower Ego Alley Road	5,360	Road		5,360		272	20
2010 Total	60,307						
Total Treated Area	291,949		23,460	67,754	145,286		



Table 2. All restoration treatment areas at Homewood Mountain Resort between 2006 and 2010. This table summarizes treatment areas for the same projects as Table 1 but breaks down treatment area by parcel and land capability and was derived from *GIS analysis*. Please note that the treated lengths and total treatment areas for each project differ between Tables 1 and 2 due to the spatial error inherent in working with GIS data.

Road Name	Road ID	Parcel	LCC	Length (ft)	Width (ft)	Area (sq ft)
Ellis Road 2	ELS2	4A	Class 3	305	12	3,663
Lower Ego Alley	LEA	4A	Class 3	238	20	4,765
Road 37	37	4A	Class 1a	696	19	13,220
Road 37	37	4A	Class 3	89	19	1,689
Upper Wedding Road	WDG	4A	Class 3	188	15	2,824
Creek Road	CKR	5C	Class 3	105	12	1,263
Creek Road	CKR	5C	Class 5	811	12	9,731
Creek Road	CKR	5C	SEZ	35	12	418
Road 33	33	5C	Class 3	300	13	3,904
Smooth Cruise Road	SCD	5C	Class 5	64	18	1,145
Lower Lombard	LL	6A	Class 2	232	14	3,249
Lower Wedding Road	WDG	16	Class 1a	164	12	1,968
Upper Wedding Road	WDG	16	Class 1a	158	15	2,376
Upper Wedding Road	WDG	16	Class 3	1,127	15	16,906
Rainbow Ridge Road	RBR	17	Class 4	101	15	1,514
Division Spur Road 1	DSR1	18	Class 1a	467	12	5,608
Division Spur Road 1	DSR1	18	Class 3	404	12	4,853
Division Spur Road 2	DSR2	18	Class 1a	347	13	4,513
Division Spur Road 2	DSR2	18	Class 3	335	13	4,350
Division Spur Road 2	DSR2	18	SEZ	29	13	380
Ellis Road 1	ELS1	18	Class 1a	550	12	6,597
Ellis Road 1	ELS1	18	Class 3	375	12	4,499
Ellis Road 2	ELS2	18	Class 3	224	12	2,684
Homeward Bound 0	HB0	18	Class 3	596	53	31,579
Homeward Bound 0	HB0	18	Class 4	35	53	1,850
Homeward Bound 0	HB0	18	Class 6	13	53	712
Homeward Bound 1	HB1	18	Class 3	226	18	4,062
Rainbow Ridge Road	RBR	18	Class 4	225	15	3,371
Road 31	31	18	Class 3	263	22	5,788
Road 33	33	18	Class 1a	652	13	8,473
Road 33	33	18	Class 3	497	13	6,458
Road 5	rd5	18	Class 1a	651	24	15,612
Road 5	rd5	18	Class 3	334	24	8,019
Smooth Cruise Road	SCD	18	Class 1a	216	18	3,887
Smooth Cruise Road	SCD	18	Class 3	819	18	14,739
Smooth Cruise Road	SCD	18	Class 5	517	18	9,312
Smooth Cruise Road	SCD	18	SEZ	11	18	190
Homewood Canyon Creek	HCC	19A	Class 3	1,225	15	18,380
Homewood Canyon Creek	HCC	19A	Class 5	42	15	624
Rainbow Ridge Road	RBR	19A	Class 2	237	15	3,551
Rainbow Ridge Road	RBR	19A	Class 4	1,647	15	24,703
Rainbow Ridge Road	RBR	19A	Class 5	264	15	3,966
Rainbow Ridge Road	RBR	19A	Class 6	142	15	2,129
Road 5	rd5	19A	Class 1a	640	24	15,362
Road 5	rd5	19A	SEZ	157	24	3,763
Rainbow Ridge Road	RBR	20	Class 3	50	15	757
Rainbow Ridge Road	RBR	20	Class 5	579	15	8,690
Total Area						298,096



A map showing the locations of the roads included in Tables 1 and 2 is shown on the following page.



Homewood Mountain Resort Road Coverage Removal

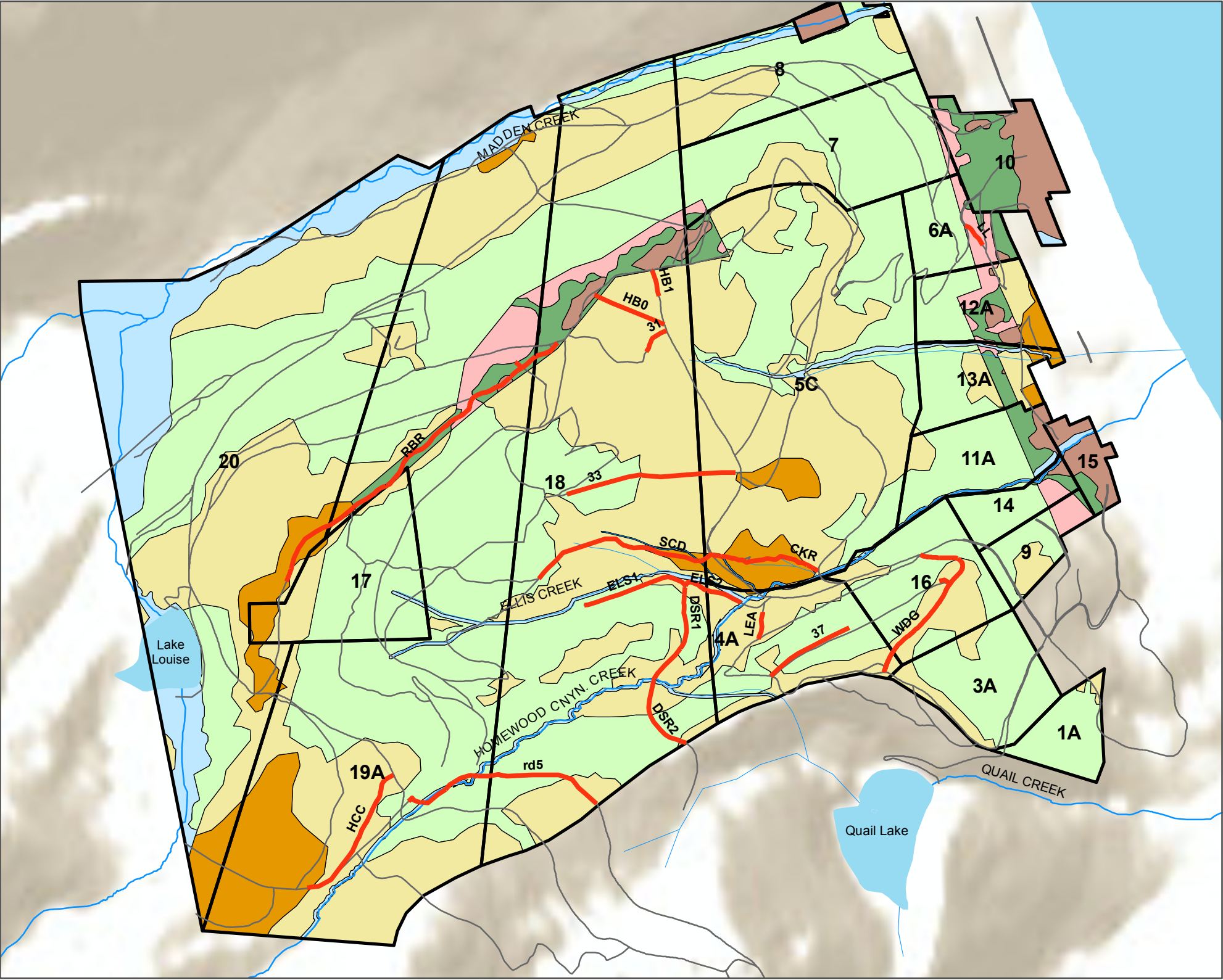
This map shows coverage at Homewood Mountain Resort treated between 2006 and 2010.

Legend

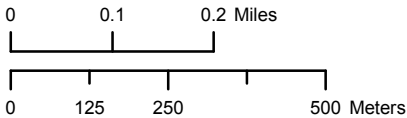
- Treated Roads
- Roads
- Streams
- Parcels

Land Capability

- Class 1a
- Class 2
- Class 3
- Class 4
- Class 5
- Class 6
- SEZ



August 12, 2011 Data Sources:
Map Drawn by: TRPA 2005
Kevin Drake IERS 2006-2010
Trimont Surveying 2010



Selected Project Photos: Pre- and Post-Treatment

Creek Road



Pre-treatment - erosion is clearly visible.



Post Treatment plus one growing season

Upper Wedding Road



Pre-treatment – compacted dirt road



Post-treatment after two growing seasons

Diversion Spur Road



Pre-treatment – road prism and tracks visible



Post-treatment (same construction season as treatment)

Ellis Road



Pre-treatment – near Homewood Creek crossing



**Pre-treatment – near Homewood Creek crossing
(same season as treatment)**



Pre-treatment – compacted road

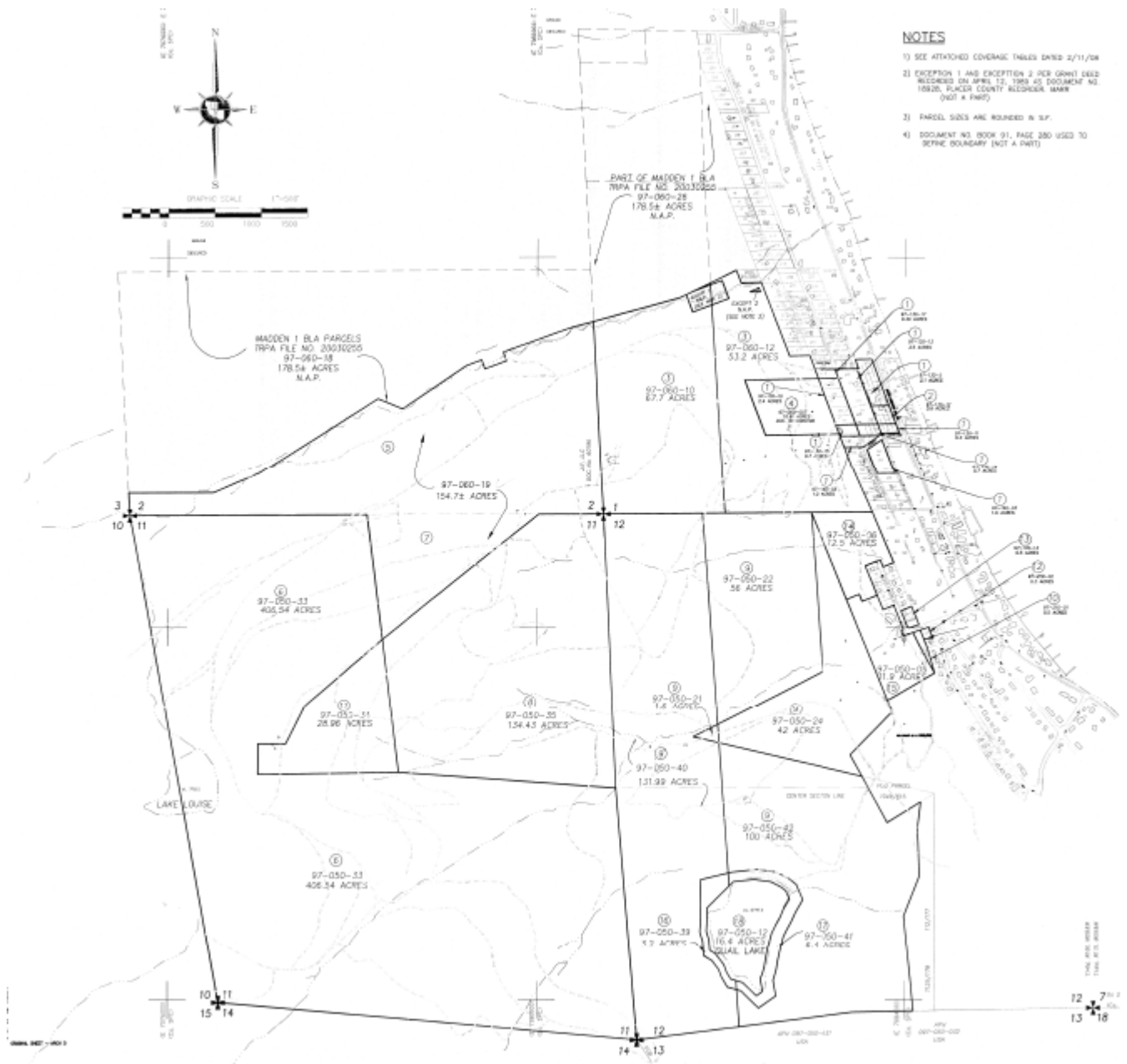


Post-treatment (same season as treatment)



Attachment C

Homewood Mountain Parcel Configuration Pre-BLA



Homewood Mountain Parcel Configuration Post-BLA

